

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

AFATTA

First Named

Inventor

Russell E. Blatte

Appln. No.:

10/628,219

Filed

July 28, 2003

For

APPARATUS AND METHOD FOR

FISHING LINE SPLICING

Docket No.:

M550.12-0030

Appeal No. ---

Group Art Unit: 3643

Examiner: Kurt C. Rowan

### TRANSMITTAL OF APPEAL BRIEF (PATENT APPLICATION - 37 C.F.R. §41.37)

Mail Stop Appeal Brief - Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 I HEREBY CERTIFY THAT THIS PAPER IS BEING SENT BY U.S. MAIL, FIRST CLASS, TO THE COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450,

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Sir:

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on October 6, 2006.

#### FEE FOR FILING APPEAL BRIEF

Pursuant to 37 C.F.R. §41.20(b)(2) the fee for filing the Appeal Brief is \$500.00.

The Director is authorized to charge any additional fees associated with this paper or credit any overpayment to Deposit Account No. 23-1123. A duplicate copy of this communication is enclosed.

Respectfully submitted,

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### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

First Named

Inventor:

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Appeal No. ---

Appln. No.: 628,219

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July 28, 2003

For

APPARATUS AND METHOD FOR

FISHING LINE SPLICING

Docket No.:

588801US002

M550.12-0030

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### **BRIEF FOR APPELLANT**

Mail Stop Appeal Brief-Patents Commissioner for Patents P.O: Box 1450 Alexandria, VA 22313-1450

Sir:

I HEREBY CERTIFY THAT THIS PAPER IS BEING SENT BY U.S. MAIL, FIRST CLASS, TO THE COMMISSIONER FOR PATENTS, P.O.

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This is an appeal from a Final Office Action dated June 15, 2006 in which claims 5, 12, 13, and 16 were withdrawn from consideration and claims 1-4, 6-11, 14-15, and 17-18 were finally rejected.

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### **REAL PARTY IN INTEREST**

3M Innovative Properties Company, a wholly-owned subsidiary of 3M Company, a corporation of Delaware, having its principal offices at St. Paul, Minnesota, has acquired the entire right, title and interest in and to the invention, the application, and any and all patents to be obtained therefor.

### RELATED APPEALS AND INTERFERENCES

There are no known related appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

### **STATUS OF THE CLAIMS**

I. Total number of claims in the application.

Claims in the application are: 18

II. Status of all the claims.

A. Claims cancelled: 0

B. Claims withdrawn but not cancelled: 5, 12-13, and 16

C. Claims pending: 1-4, 6-11, 14-15, and 17-18

D. Claims allowed: 0

E. Claims rejected: 1-4, 6-11, 14-15, and 17-18

F. Claims Objected to: 0

III. Claims on appeal

The claims on appeal are: 1-4, 6-11, 14-15, and 17-18

### **STATUS OF AMENDMENTS**

A Response after the Final Office Action was mailed on August 15, 2006 and was entered. No claim amendments were made by that Response and no claim amendments have been made since the Final Office Action was mailed.

#### **SUMMARY OF CLAIMED SUBJECT MATTER**

The application currently under appeal includes three pending independent claims: 1, 14, and 18.

Claim 1 is directed toward a splice system 10 for linear connection of fishing lines. The splice system 10 includes a female connector 18 and a male connector 16. (Appn., p. 3, ll. 13-15; FIGs. 1-2.) The female connector 18 has a first end 48, a second end 50, a longitudinal axis 15, and an outer surface with an aperture 30 disposed thereon. (Appn., p. 3, ll. 29-30; p. 5, ll. 28-29; FIG. 2.) The first end 48 is connected to a first fishing line section 12. (Appn., p. 5, ll. 30-31; FIG. 2.) The second end 50 has a co-axial interior opening 23. (Appn., FIG. 2.) The connector 18 has a co-axial interior feature 52 with a radial extent. (Appn., p 6, ll. 4-10; FIG. 2.) The male connector 16 that has a first end 36 and an opposing second end and a longitudinal axis 15. (Appn., p 5, ll. 12-14; FIG. 2.) The second end is connected to a second fishing line section 14. (Appn., p 3, ll. 17-18; FIG. 2.) The first end 36 of the male connector 16 is configured for coaxial insertion into the opening 23 of the female connector 18. (Appn., p 5, ll. 14-16; FIG. 2.) The second end of the male connector 16 includes a plurality of resilient petals 24 having a radial extent greater than the radial extent of the interior feature 52 of the female connector 18. (Appn., p 6, ll. 8-10; FIG. 2.) The resilient petals 24 deform to allow passage of the second end of the male connector 16 axially past the interior feature 52. (Appn., p 6, ll. 10-11.)

Claim 14 is directed toward a method for linear connection of fishing lines 12 and 14. The method includes providing a female connector 18 and a male connector 16. (Appn., p. 3, ll. 13-15; FIGs. 1-2.) The female connector 18 has a first end 48, a second end 50, and a longitudinal axis 15. (Appn., p. 5, ll. 28-29; FIG. 2.) The first end 48 is connected to a first fishing line section 12. (Appn., p. 5, ll. 30-31; FIG. 2.) The second end 50 has an interior opening 23. (Appn., FIG. 2.) The female connector 18 has a co-axial interior feature with a radial extent 52. (Appn., p 6, ll. 4-10; FIG. 2.) The male connector 16 has a first end 36, an opposing second end, and a longitudinal axis 15. (Appn., p 5, ll. 12-14; FIG. 2.) The second end is connected to a second fishing line section 14. (Appn., p 3, ll. 17-18; FIG. 2.) The first end 36 of the male connector 16 is configured for coaxial

insertion into the opening 23 of the female connector 18. (Appn., p 5, ll. 14-16; FIG. 2.) The second end of the male connector 16 includes a plurality of resilient petals 24 having a radial extent greater than the radial extent 52 of the female connector 18. (Appn., p 6, ll. 8-10; FIG. 2.) The method further includes moving the male connector 16 into the opening 23 of the female connector 18 and moving the resilient petals 24 of the second end of the male connector 16 axially past the interior feature 52 of the female connector 18 such that the resilient petals 24 deform radially inwardly while moving axially past the interior feature 52. (Appn., p 6, ll. 10-11.)

Claim 18 is directed toward a method for replacing a fishing line section 14. (Appn., p 7, ll. 21.) The method includes providing a first fishing line section 12 connected to a female connector 18 and a second fishing line section 14 connected to a male connector 16. (Appn., p 3, ll. 17-18; FIG. 2.) The male connector 16 is connected to the female connector 18. (Appn., p 5, ll. 11-12; FIG. 2.) The female connector 18 has an outer surface with an aperture 30 disposed thereon. (Appn., p 3, ll. 29-30; FIG. 1.) The method includes moving the male connector 16 through the aperture 30 to separate the male connector 16 from the female connector 18. (Appn., p 7, ll. 21-22; FIG. 3.) The method further includes cutting the second fishing line 14 and discarding the second fishing line 14 and the male connector 16. (Appn., p 7, ll. 24-28; FIG. 3.) A second male connector 16 having a first end 36, an opposing second end, and a longitudinal axis is provided. (Appn., p 7, l. 29.) The second end is connected to a third fishing line section and the first end configured for coaxial insertion into the opening of the female connector, the second end of the male connector comprising a plurality of resilient petals having a radial extent greater than a radial extent of an interior feature of the female connector. The second male connector is inserted into the opening 23 of the female connector 18 so that the resilient petals of the second end of the second male connector move axially past the interior feature 52 of the female connector 18. (Appn., p 8, ll. 1-3.) The petals of the second male connector deform radially inwardly while moving past the interior feature 52. (Id.)

### GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The first ground of rejection to be reviewed on appeal is the rejection of claims 1-4, 6-8, 14-15, and 18, which stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Pat. No. 3,857,645 of Klein in view of U.S. Pat. No. 3,988,852 of Klein.

The second ground of rejection to be reviewed on appeal is the rejection of claims 9-11 and 17, which stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Pat. No. 3,857,645 of Klein in view of U.S. Pat. No. 3,988,852 of Klein and further in view of U.S. Pat. No. 2,784,518 of Boyer.

#### <u>ARGUMENT</u>

## I. Claims 1-4 and 6-8 have been improperly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 3,857,645 of Klein in view of U.S. Pat. No. 3,988,852 of Klein and the rejection should be reversed.

Claims 1-4 and 6-8 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Pat. No. 3,857,645 of Klein (hereinafter "Klein I") in view of U.S. Pat. No. 3,988,852 of Klein (hereinafter "Klein II"). Applicants assert that this rejection, made in the Final Office Action mailed June 15, 2006 and reiterated in the Advisory Action mailed on September 12, 2006 is clearly erroneous, that claims 1-4 and 6-8 are patentable over the cited references, and that the rejection therefore should be reversed.

## A. The Klein I and Klein II references, alone or in combination, fail to teach or suggest a splice system having a male connector and a female connector of the type recited in claim 1.

Claim 1 is directed toward a splice system for linear connection of fishing lines. The system includes a female connector that is connected to a first fishing line section and a male connector connected to a second fishing line section. The male connector is connected to a second fishing line section on a second end. The first end of the male connector is configured for coaxial insertion into the opening of the female connector. The second end of the male connector comprises a plurality of resilient petals having a radial extent greater than the radial extent of an interior feature of the female connector. The resilient petals of the male connector thus deform to allow passage of the second end of the male connector axially past the interior feature.

By contrast, Klein I teaches a fishing line connector head H permanently secured to a leader L. (See Klein I, col. 3, ll. 50-54.) A fishing line such as a fly line F is attached to the "unitary structure" that is the combination of connector head H and the leader L. (See id. at col col. 3, ll. 54-55; FIG. 1.) Klein I describes the connector head H as a "small cylindrical body which is somewhat cigar-shaped". (See id. at col. 3, 61-62.) Numerous alternative examples of a

connector head H are shown in FIGs. 7-10. In each case, the connector head (designated as H', H'', or Hb, depending on the embodiment) is made of a single unitary piece of material. There is no teaching or suggestion of a two-piece splice system having a female connector and a male connector each of which can be attached to a piece of fishing line and then attached to each other.

Furthermore, Applicants assert that the Klein I reference provides no motivation to consider a two piece splice system of the type recited in claim 1. Klein I teaches that the connector head H and the leader L are to be formed together as a "unitary product" and may be "merchandised as such" so that "a fisherman may attach the connector to his fly line F when the leader is to be put into use." (*Id.* at col. 5, 24-27.) The fly line F is to be attached directly to the one-piece connector head H, which is also directly connected to the leader L. Since Klein I teaches that its invention is to be merchandized as a unitary product, Applicants assert that Klein I therefore provides no motivation to consider a two-piece splice system. In fact, Applicants assert that the Klein I reference teaches away from splice system recited in claim 1. Thus, even if Klein II were to teach a splice system having a male connector and a female connector, Applicants assert that the combination of Klein I with such a device would not be an obvious combination.

In fact, the Klein II reference fails to teach or suggest a two-piece splice system having male and female connectors of the type recited in claim 1. The Klein II reference, like the Klein I reference, teaches a connector that is a single unitary piece of material. In FIG. 1 of Klein II, a snell S is shown connected to a hook H by a connector C. (Klein II, col. 3, Il. 15-17.) FIGs. 2-5 illustrate a connector, identified as C1, which is a one-piece body. The hook H is a unitary piece of material with a particular shape including a straight portion commonly known as a shank 41 that is inserted into the connector on an end opposite of the snell S. Klein II describes alternative embodiments of the connector C, identified in FIGs. 9-11 and 13 as C2-C5. Nowhere does Klein II teach or suggest a splice system having a female connector attached to a first fishing line section and a male connector attached to a second fishing line section. Rather, Applicants assert that Klein II teaches a snell attached to a hook via a connector body having one piece. Furthermore, Klein II, which does not describe anything other than the one-piece connectors

identified above, does not teach or suggest a male connector having resilient petals that deform to allow passage of the second end of the male connector axially past the interior feature. The second end of the Hook H does not have resilient petals and the connector C does not allow for passage of the second end of the male connector past an interior feature. Applicants thus assert that neither the Klein I reference nor the Klein II reference teaches the splice system recited in claim 1.

In view of the foregoing, Applicants assert that the rejection of claim 1 made in the Final Office Action and the Advisory Action is clearly erroneous. The Office Action asserts that the Klein II reference teaches a splice system that has a male connector. The Final Office Action then identifies the shank 41, which is part of a unitary hook H, as the male connector. As discussed above, Applicants assert that the hook H is one of two items (the other being the snell S) that are spliced together by the connector C in the Klein reference. This is markedly different from the splice system in claim 1, which, as described above, recites a female connector attached to a first fishing line section and a male connector attached to a second fishing line section.

Furthermore, Applicants assert that the hook H does not teach a male connector of the type recited in claim 1. Klein II neither teaches nor suggests that Hook H has a first end configured for "coaxial insertion into the opening of the female connector" and a "second end connected to a second fishing line section". In the Advisory Action, it is stated that the hook "is connected to the fishing line S by way of connector C1." (Advisory Action, p. 2.) Applicants assert that this statement does not teach the invention recited in claim 1, but further reinforces Applicants' main assertion. The first end of the Hook H is attached to the connector C1. The second end of the Hook H is not connected to any fishing line. For Hook H to be the requisite "male connector", the second end of Hook H must be attached to a second fishing line section. As can be seen in the relevant figures of Klein II (FIGs. 1 and 10), the second end of Hook H is not connected to a second fishing line section. Klein II teaches only one fishing line section attached to a splice system, snell S. It does not teach a second fishing line section. Thus, Klein II provides for nothing more than a fishing line section spliced to a Hook H via a one-piece splice system (connector C) that does not include a male and a female connector.

Even if it were the case that Hook H taught a male connector of a splice system, a point that Applicants do not concede and vigorously dispute, the Klein II reference fails to teach a male connector with a second end comprising a plurality of resilient petals having a radial extent greater than the radial extent of an interior feature of the female connector such that the resilient petals of the male connector deform to allow passage of the second end of the male connector axially past the interior feature. The Final Office Action asserts that "the barbs 51 of the male connector [are resilient] so that the second end of the male connector compresses or the interior feature of the female connector expands to allow passage of the second end of the male connector axially past the interior feature." (Final Office Action, p. 2.) However, Applicants assert that whether the female connector expands to allow passage is irrelevant to the features recited in claim 1. Furthermore, the statement that the second end of the male connector compresses is not supported by the teachings of the Klein II reference.

Klein II provides two different examples, shown in FIGs. 2 and 6, of barbs located on the hook shank. The barbs 51 are described in Klein II (see id. at col. 4, ll. 37-50), but nowhere is there any mention that the barbs 51 are "resilient" or that they "deform" to allow passage of the hook H into the connector C. In fact, the opposite is disclosed in Klein, that is, that the connector C is made of resilient material and will "stretch" upon insertion of the hook shank. (See id. at col. 3, l. 31; col. 4, ll. 29-31.) In addition, the barbs 51a of FIG. 6 are disclosed to be arranged in a "helical pattern" so that the hook shank can be turned into the connector C as if the "barbs 51a constituted threads. In this construction, the barbs 51a will cut a thread-like slit in the connector..." (Id. at col. 4, ll. 61-65.) Applicants assert that if the barbs were "resilient petals" they would deform and therefore not cut a slit-like pattern into the connector C. Thus, this construction provides additional support for the assertion that the hook does not have resilient petals that deform. Furthermore, the barbs that extend into the connector C are not located at the second end of the Hook H or on the second end of the shank 41. Shank 41 extends out of the connector C (see id. at FIG. 1). Even if the shank 41 were considered to be a male connector and the barbs on the shank 41 were considered to be resilient petals, the barbs 51 are not located on a second end of the shank 41.

Additionally, even if there were a teaching of a male/female connector arrangement that taught all of the recited features of the splice system of claim 1 in the Klein II reference, a point that Applicants do not concede and vigorously dispute, Applicants assert that there is no motivation to combine the Klein I and Klein II references. In the Final Office Action, on page 3, it is asserted that it would have "been obvious to provide Klein I with a male connector to replace the knot in a line since merely one equivalent connector is being replaced by another and the function is the same." However, as described above, Klein I provides no motivation to be combined with another reference. In fact, as stated above, Klein I teaches a "unitary product" and may be "merchandised as such" so that "a fisherman may attach the connector to his fly line F when the leader is to be put into use." Applicants assert that this teaching indicates that Klein I considers a one piece leader with an integral connector to which a fishing line is to be attached a marketable feature. Thus, the incorporation of a two-piece splice system is not compatible with the unitary product disclosed in Klein I. In other words, there is no motivation to combine Klein I with a splice system having two, that is male and female, connectors.

For these reasons, Applicants assert that the claim 1 and its dependent claims, 2-4 and 6-8 are allowable over the references of record. Therefore, Applicants request that the rejection be overturned.

# B. Klein I and II, alone or in combination fail to teach or suggest a splice system having a male connector wherein the male connector has a head at the first end and a plurality of petals at the second end of the type recited in claim 4.

Claim 4, as discussed above, depends from claim 1 and is asserted to be allowable for the reasons described above. In addition, Applicants assert that claim 4 is independently allowable for the reasons provided below. Claim 4 recites that the male connector has a head at the first end and a plurality of petals at the second end. As discussed above with respect to claim 1, there is no teaching or suggestion in either of the Klein references of a male connector of the type

recited therein. Furthermore, there is no teaching or suggestion of a male connector having a head at a first end and a plurality of petals at the second end.

Even if the Hook H or the shank 41 in the Klein II reference was considered to be a male connector, an assertion that Applicants, as described above, vigorously dispute, there is no teaching or suggestion of a head on one end of the Hook H or shank 41 and a plurality of petals on the second end. As recited in claim 1, the first end of the male connector is configured for coaxial insertion into the female connector and the second end is intended to be passed axially past an interior feature of the female connector. The Hook H has a first end that is intended to be inserted into connector C, or in the alternative, the connector C is intended to be molded over the first end of the hook. The second end of the hook has a barb 40. The second end of Hook H is not intended to pass through an interior feature of the connector C. Furthermore, the second end of the Hook H does not have a plurality of petals at its second end. Even if it could be accepted that the shank 41 is a connector distinct from the rest of the hook H (which is simply not true), one end of the shank 41 extends out of the connector and does not have any resilient petals thereon. Therefore, Applicants assert that neither of Klein references teaches or suggests the recited features of claim 4 and that claim 4 is independently allowable. For these additional reasons, the rejection of claim 4 should be reversed.

### II. Claims 14-15 have been improperly rejected under 35 U.S.C. § 103(a) as being unpatentable over Klein I in view of Klein II and the rejection should be reversed.

Claims 14-15 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Klein I in view of Klein II. Applicants assert that claims 14 and 15 are patentable over the cited references, and that the rejection therefore should be reversed.

Claim 14 is directed toward a method of linear connection of fishing lines, which comprises providing a female connector and a male connector. The female connector is connected on a first end to a first fishing line section and the male connector is connected on a second end to a second fishing line section. The female connector has a second end having an opening therein with a coaxial interior feature having a radial extent. The method includes

inserting the male connector into the opening of the female connector and moving resilient petals on a second end of the male connector axially past the interior feature of the female connector such that the resilient petals deform radially inwardly while moving axially past the interior feature.

As discussed above with respect to claim 1, Applicants assert that neither Klein reference provides any teaching or suggestion of a splicing method that includes providing a female connector attached to a first fishing line section and a male connector attached to a second fishing line section and inserting the male connector into the female connector. Klein I and Klein II, alone or in combination provide no teaching or suggestion of a method incorporating a male and a female connector to join two fishing line sections together and to assert that they do is clearly erroneous. Therefore, Applicants assert that independent claim 14 is patentable over the Klein I and Klein II references and the rejection of claim 14 and its dependent claim 15 be reversed.

### III. Claim 18 has been improperly rejected under 35 U.S.C. § 103(a) as being unpatentable over Klein I in view of Klein II and the rejection should be reversed.

Claim 18 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Klein I in view of Klein II. Applicants assert that this rejection, made in the Final Office Action and reiterated in the Advisory Action is clearly erroneous, that claim 18 is patentable over the cited references, and that the rejection therefore should be reversed.

Independent claim 18 is a method of replacing a fishing line section. The method comprises providing a first fishing line section connected to a female connector, the female connector having an outer surface with an aperture disposed thereon. The method further includes providing a second fishing line section connected to a male connector, the male connector being connected to the female connector. The method further includes moving the male connector through the aperture to separate the male connector from the female connector. The second fishing line is then cut and the second fishing line and the male connector are discarded. The method further includes providing a second male connector having first and

second opposite ends and a longitudinal axis, the second end being connected to a third fishing line section and the first end configured for coaxial insertion into the opening of the female connector. The second male connector is then inserted into the opening of the female connector and resilient petals located on the second end of the second male connector are moved to allow the second male connector to pass axially past an interior feature of the female connector.

As discussed above with respect to independent claims 1 and 14, neither of the Klein I nor the Klein II references teaches or suggests a two-piece splice system having male and female portions each attached to one of first and second fishing line sections wherein the male portion is inserted into the female portion. Therefore, the Applicants assert that claim 18 is allowable over the proposed combination of the Klein I and the Klein II references. Withdrawal of the rejection is hereby requested.

## IV. Claims 9-11 have been improperly rejected under 35 U.S.C. § 103(a) as being unpatentable over Klein I in view of Klein II and further in view of U.S. Pat. No. 2,784,518 of Boyer and the rejection should be reversed.

Claims 9-11 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Klein I in view of Klein II and further in view of Boyer. Applicants assert that claims 9-11 are patentable over the cited references, and that the rejection therefore should be reversed. Claims 9-11 depends indirectly or indirectly from independent claim 1, which as is asserted above, is allowable over the cited art. Applicants assert that, based upon their dependency on an allowable claim, claims 9-11 are likewise allowable. Therefore, Applicants assert that the rejection was made in error and should be overturned.

## V. Claims 17 has been improperly rejected under 35 U.S.C. § 103(a) as being unpatentable over Klein I in view of Klein II and further in view of Boyer and the rejection should be reversed.

Claims 17 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Klein I in view of Klein II and further in view of Boyer. Applicants assert that this rejection, made

in the Final Office Action mailed June 15, 2006 is clearly erroneous and should be reversed. Claim 17 depends indirectly from claim 14, which as is asserted above, is allowable over the cited art. Applicants assert that, based upon its dependency on an allowable claim, claim 17 is

likewise allowable.

Claim 17 depends from claim 15, which, as described above, is believed to be allowable. Therefore, Applicants assert that claim 17 is also allowable and that the rejection of claim 17 has been made in error. Therefore, Applicants assert that the rejection of claim 17 should be

reversed and that claim 17 should be allowed.

In summary, Applicants believe that claims 1-4, 6-11, 14-15, and 17-18 are allowable for the reasons asserted above. Applicants thus request that the rejection of claims 1-4, 6-11, 14-15, and 17-18 be reversed and that claims 1-4, 6-11, 14-15, and 17-18 be allowed.

Respectfully submitted,

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#### **CLAIMS APPENDIX**

- 1. A splice system for linear connection of fishing lines, the system comprising:
  - a female connector having an outer surface, first and second opposite ends, and a longitudinal axis, the outer surface having an aperture disposed thereon, the first end connected to a first fishing line section and the second end having a co-axial opening therein, the connector having a co-axial interior feature with a radial extent; and
  - a male connector having first and second opposite ends and a longitudinal axis, the second end connected to a second fishing line section and the first end configured for coaxial insertion into the opening of the female connector, the second end comprising a plurality of resilient petals having a radial extent greater than the radial extent of the interior feature of the female connector;
  - wherein the resilient petals of the male connector deform to allow passage of the second end of the male connector axially past the interior feature.
- 2. The splice system of claim 1 wherein the female connector is removably connected to the first fishing line section.
- 3. The splice system of claim 2 further comprising:
  - an axial bore in the first end of the female connector having a diameter greater than a diameter of an end of the first fishing line section and less than a diameter of a knot formed at the end of the first fishing line.
- 4. The splice system of claim 1 wherein the male connector has a head at the first end and a plurality of petals at the second end.
- 5. The splice system of claim 1 further comprising a ramp disposed on an interior surface of the female connector.

- 6. The splice system of claim 1 wherein the interior feature is a raised interior annulus.
- 7. The splice system of claim 6 further comprising a radially extending flat surface disposed on the raised interior annulus, the flat surface facing the first end of the female connector.
- 8. The splice system of claim 1 wherein the male connector is permanently connected to the second fishing line.
- 9. The splice system of claim 1 further comprising a float disposed on a fishing line section.
- 10. The splice system of claim 9 in which the float is radially symmetric.
- 11. The splice system of claim 10 in which the float is tapered.
- 12. The splice system of claim 9 further comprising a groove disposed on the outer surface of the female connector and an annulus disposed on the float configured to mate with the groove.
- 13. An apparatus comprising a card having a plurality of fishing line connectors removably disposed thereon, each connector having first and second opposite ends and a longitudinal axis, and having an axial bore extending from the first end to the second end thereof.
- 14. A method for linear connection of fishing lines comprising:
  - providing a female connector having first and second opposite ends and a longitudinal axis, the first end connected to a first fishing line section and the second end having an opening therein the connector having a co-axial interior feature with a radial extent;
  - providing a male connector having first and second opposite ends and a longitudinal axis, the second end connected to a second fishing line section and the first end configured for coaxial insertion into the opening of the female connector, the second end comprising a plurality of resilient petals having a radial extent greater than the radial extent of the female connector;

inserting the male connector into the opening of the female connector; and

moving the resilient petals of the second end of the male connector axially past the interior feature of the female connector such that the resilient petals deform radially inwardly while moving axially past the interior feature.

- 15. The method of claim 14 in which the step of providing a first fishing line section connected to a female connector includes passing an end of the first fishing line through an axial bore in the female connector and knotting the end of the first fishing line.
- 16. The method of claim 15 further comprising:

providing a plurality of the female connectors on a card; and

separating one of the female connectors from the card after knotting the end of the first fishing line.

17. The method of claim 15 further comprising:

providing a float having an axial bore; and

passing the end of the first fishing line through the bore of the float prior to passing the end of the first fishing line through the bore of the female connector.

18. A method for replacing a fishing line section comprising:

providing a first fishing line section connected to a female connector, the female connector having an outer surface with an aperture disposed thereon;

providing a second fishing line section connected to a male connector, the male connector being connected to the female connector;

moving the male connector through the aperture to separate the male connector from the female connector;

cutting the second fishing line and discarding the second fishing line and the male connector;

providing a second male connector having first and second opposite ends and a longitudinal axis, the second end connected to a third fishing line section and the first end configured for coaxial insertion into the opening of the female connector, the second end of the male connector comprising a plurality of resilient petals having a radial extent greater than a radial extent of an interior feature of the female connector;

inserting the second male connector into the opening of the female connector; and moving the resilient petals of the second end of the second male connector axially past the interior feature of the female connector, whereby the petals deform radially inwardly while moving past the interior feature.

### **EVIDENCE APPENDIX**

None.

### **RELATED PROCEEDINGS APPENDIX**

None.